
A New Species of *Albizia* Durazzini (Leguminosae Mimosoideae) from Madagascar

Jean-François Villiers

Laboratoire de Phanérogamie, 16 rue Buffon, 75005 Paris, France

ABSTRACT. A new species of *Albizia*, *A. mainaea*, is described from western Madagascar and compared with previously known species.

R. Capuron (1970) indicated the presence of *Albizia gummifera* (J. F. Gmelin) C. A. Smith from all phytogeographic domains of Madagascar. Upon examination of gatherings of this species complex from Madagascar, three species were encountered: *Albizia adianthifolia* (Schumacher) W. Wight from moist forests, *Albizia gummifera* from montane and submontane forests, and a new species from principally tropophyllous forests, which is here described and compared with species previously known in the *Albizia gummifera* complex sensu Brenan (1952).

Albizia mainaea Villiers, sp. nov. TYPE: Madagascar. Prov. Toliara: Imonty, canton Behara, district Androy, 1 Nov. 1949, *Ramakoto* 2690 RN (holotype, P; isotypes, P, TAN). Figure 1.

Albiziae gummiferae affinis sed ab ea folii rhachidi canaliculata (vel subporcata), foliorum costis subter glabris vel sparse pubescentibus ac, nervillis reticulum apertum formantibus, florum basilarium calycibus cylindricis et corollis longioribus (*A. mainaea*: 8.25–10.00 mm, *A. gummifera*: 7–9 mm), ovario pubescente cum 9–10 ovulis, floris apicalis calyce doliiforme vel campanulato, juveni legumine pubescente (vetere legumine sub-glabro) differt.

Tree to 15 m tall; bole to 60 cm diam.; twigs densely yellow to rusty-yellow pubescent at first, glabrescent, blackish with rust-colored lenticels. Stipules densely pubescent, narrowly \pm asymmetrically lanceolate, 2.5–4.0 mm long, the apex acute. Petiole shortly pubescent, 3.0–5.5 cm long, grooved above with a gland in the basal half; rhachis shortly pubescent, 2.5–15.3 cm long, grooved to subridged above with 1–4 glands near the distal pinnae; pinnae 3–9 pairs, the rhachilla \pm thinly pubescent, 2.5–11.0 cm long, ridged above with 1–2 glands near the distal leaflet pairs; leaflets 4–14 pairs, sessile, glabrous on both surfaces but with a ciliate margin, oblong-rhombic to asymmetrically rhombic, 4–23 \times 3.5–11.0 mm, the proximal margin \pm auriculate at the base, the distal margin attenuate-

cuneate, the apex rounded or obtuse, mucronulate, the midvein diagonal, glabrous on both surfaces (sometimes with a few trichomes beneath) and slightly raised on both surfaces, the lateral veins 3–5 pairs ascending, arcuate and raised on both surfaces, the veinlets forming an open network generally conspicuous beneath.

Inflorescence an axillary or terminal panicle of clustered heads; peduncle thinly yellowish-pubescent, 1.5–5.0 cm long; interfloral bracts pubescent, narrowly oblanceolate (sometimes linear), 1.2–2.5 mm long. Basal flowers hermaphrodite, sessile or with a pedicel to 0.4 mm long; calyx shortly pubescent, cylindrical, 3.2–4.0 mm long, the lobes ovate-triangular, 0.30–0.50 mm long, with an acute apex; corolla pubescent (7.30)8.25–10.00 mm long, the lobes ovate-triangular, 1.25–2.50 mm long, with an acute apex; stamens red, 21.5–41.5 mm long, the tube long exserted, 18–38 mm long, anther broadly oblongoid, ca. 0.25 mm long, sometimes with some very short trichomes; ovary with an inconspicuous stipe ca. 0.5 mm long, shortly appressed-pubescent, very narrowly ellipsoid, 2.5–3.0 mm long, with 9–10 ovules, the style 3.3–4.5 cm long with a funnel-shaped stigma. Central flower male, sessile; calyx doliiform to campanulate, shortly pubescent, 3.0–4.3 mm long, sometimes split, lobes very irregular with a ciliate margin; corolla pubescent, 8–11 mm long, lobes ovate-triangular, 1–3 mm long, with an acute apex; stamens 12–16 mm long, the tube 5–9 mm long, coriaceous, non-exserted, the filaments strongly reflexed, anther as above; ovary absent.

Pod dehiscent, shortly pubescent to subglabrous when old, chartaceous-pergamentaceous, elliptic-oblong, 8.0–15.2 \times 2.0–2.5 cm, the base attenuate and shortly stipitate, margins slightly thickened, often pubescent, the apex rounded-obtuse sometimes \pm subapiculate, venation raised, forming an open network. Seed black or brown-blackish, broadly oblong, 7–13 \times 6–9 mm, with an oblong, almost central pleurogram.

The specific epithet derives from *maina*, which means tropical dry forest in the Malagash language.

Albizia mainaea can be included in the *A.*

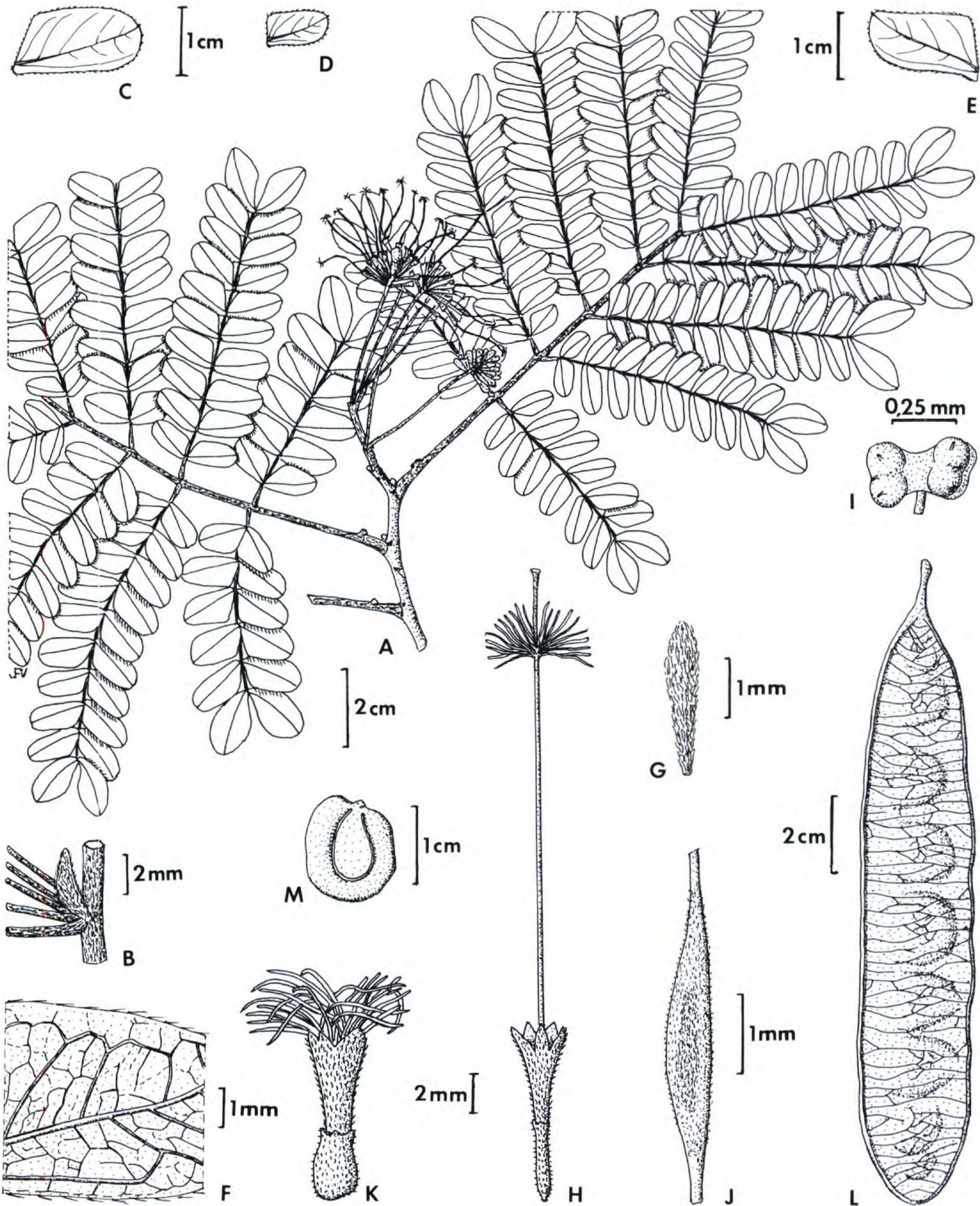


Figure 1. *Albizia mainaea* Villiers. —A. Habit. —B. Stipule. —C–E. Leaflets. —F. Venation of lamina, lower surface. —G. Interfloral bract. —H. Hermaphrodite flower. —I. Anther. —J. Ovary. —K. Central flower. —L. Pod. —M. Seed. (A, C, G–K based on *Perrier de la Bâthie* 390; B based on *Decary s.n.*; D based on *Service forestier Madagascar* 12125 SF; E, F, L, M based on *Seyrig* 10d).

gummifera complex sensu Brenan (1952). *Albizia gummifera* (J. F. Gmelin) C. A. Smith is a combination established by Smith (1930) for the botanical name of the “Flat-crown tree.” The complex comprises: *A. adianthifolia* [*A. intermedia* De Wildeman & T. Durand, recognized by Brenan, is here considered as *A. adianthifolia* var. *intermedia* (De Wildeman & T. Durand) Villiers; see Villiers, 1989]; *A. gummifera* [*A. gummifera* var. *ealaensis* (De Wildeman) Brenan is a syn-

onym of *A. adianthifolia* var. *intermedia*; see Villiers, 1989]; and now *A. mainaea*.

Albizia mainaea is easily distinguished from *A. adianthifolia* by the lamina more or less auricled at the proximal base and glabrous on both surfaces (the short raised pubescence of the upper surface, very characteristic of *A. adianthifolia*, is never seen in *A. mainaea*) and by the pubescent ovary. *Albizia mainaea* is most closely related to *A. gummifera*, differing in the grooved to subridged rhachis, the midrib of the leaflet glabrous on both surfaces, sometimes with a few trichomes beneath (vs. pubescent beneath in *A. gummifera*), the veinlets generally conspicuous beneath (vs. very lightly conspicuous in *A. gummifera*), the cylindrical calyx of basal flowers (vs. obconical in *A. gummifera*), the larger corolla (*A. mainaea*: 8.25–10.00 mm, *A. gummifera*: 7–8 mm), the longer stipe of the ovary, and the pubescent ovary with 9–10 ovules (vs. glabrous with 7 ovules in *A. gummifera*), the calyx doliiform to campanulate in the central flower (vs. cylindrical in *A. gummifera*), and the shortly pubescent young pod (vs. glabrous in *A. gummifera*).

Albizia mainaea, endemic to Madagascar, is present in all parts of the western region (perhaps except in the driest zones of the southern domain), in the Sambirano domain along the rivers, and in the western and southern part of the central domain up to 1000 m when the forest is disturbed. (Fig. 2).

Paratypes. Madagascar. **Prov. Antananarivo:** Ambohitrandriana, distr. Ankazobe, *Service forestier Madagascar* 16006 SF (P). **Prov. Antsiranana:** Beangona, *Harizo* 1274 RN (P); Nossi Bé, Lokobé, *Hildebrandt* 3123 (P); Sakaramy, Antsiranana, *Service forestier Madagascar* 15049 SF (P). **Prov. Fianarantsoa:** region of Ambararata, *Decary s.n.* (P); Isalo massif, SW Ranohira, 22°37'17"S, 45°21'40"E, *Du Puy, Labat & Comtet* M682 (K, MO, P); Horombe plateau, W valley of Ihosy, *Humbert* 2941 (P); Zazafotsy forest, near Ihosy, *Keraudren* 322 (P); rests of forest in the valley of river Menaraha, between Ihosy and Ivohibe, alt. 600–800 m, *Léandri & Ratoto in Léandri* 3449 (P). **Prov. Mahajanga:** Besalamy, *Adanimarobaina* 68 (= 5987 SF) (P); Ankarafantsika, *Bosser* 8444 (MO, P); Maromandia (Ambalika), *Decary* 1072 (P); gorges of Manombolo, *Léandri* 429 (P); Beritsoka, *Perrier de la Bâthie* 390 (P); Mandraty, left bank of Ikopa, between Maevatanana and Andrika, *Perrier de la Bâthie* 12132 (P); Madirovalo (Boiny), *Perrier de la Bâthie* 13882 (P); Tsaramandroso, distr. Ambato-Boeni, *Ramanonjisoa* 2534 RN (P); Andranomavo, distr. Soalala, *Randriamiera* 7735 RN (P); Mitsinjo, road to Namakia, *Service forestier Madagascar* 4302 SF (P); Ambalatsingy, distr. Analalava, *Service forestier Madagascar* 11123 SF (P); between Mevahakia and Tsarahonenana, near Mavahakia, canton Tsarahonenana, distr. Befandriana Ava., *Service forestier Madagascar* 19801 SF (P); 22 km SSE Antsalova, 9 km E Ankiliromotsy, *Villiers, Klackenberg & Badré* 4985 (P); Beala forest, Manja, s.c. 28.R.279 (P). **Prov. Toliara:** Vinambe, distr. Tolianaro, *Decary* 10851 (P); NW Tolanaro, Integral Reserve 11 (Andohahela), 24°45'S, 46°51'E,

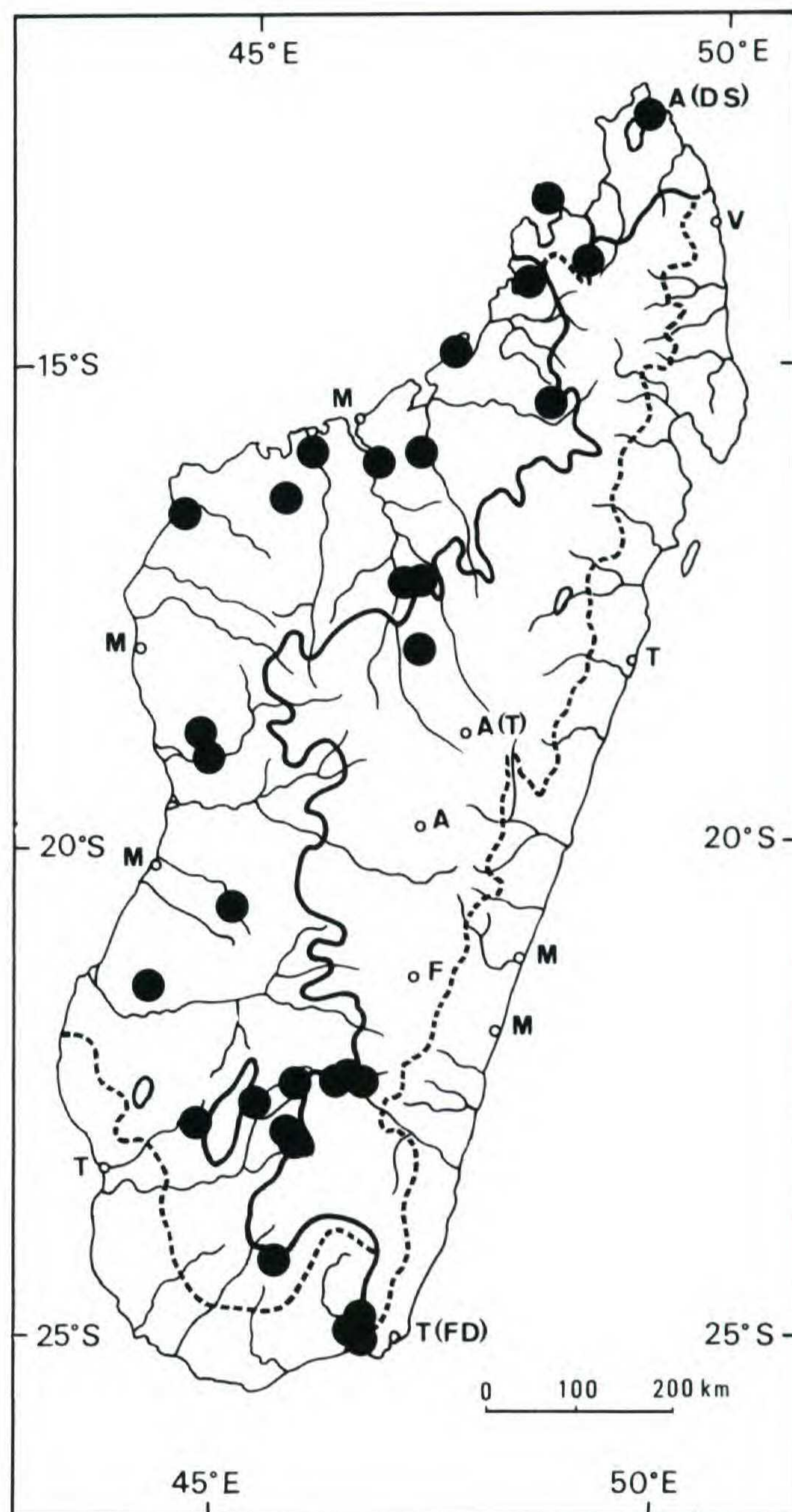


Figure 2. Known distribution of *Albizia mainaea*.

Malcomber, van der Werff, Gray, Raparanivo & Randriamampionana 1657 (MO, P); Lambonakandro (Isalo), *Perrier de la Bâthie* 18596 (leg Drouhard) (P); Nat. Réserve 11, Behara, *Rakotoniana* 6218 RN (P); Bevahy, Morondava, *Service forestier Madagascar* 4080 SF (P); Aborontsy, Andriandampy, Betroka, *Service forestier Madagascar* 6340 SF (P); Manampaza river, Ranopiso, *Service forestier Madagascar* 11167 SF (P); Sakata, Betroka, *Service forestier Madagascar* 12125 SF (P); Ampandradava, between Bekily and Tsivory, *Seyrig* 10d (P).

Literature Cited

- Brenan, J. P. M. 1952. The *Albizia gummifera* complex. *Kew Bull.* 7: 507–518, figs. 1–5.
 Capuron, R. 1970. Contribution à l'étude de la flore forestière de Madagascar: Notes sur les *Albizia* Duraz. (Légumineuses Mimosoïdées). *Adansonia*, sér. 2, 11: 357–382, pls. 1–4.
 Smith, C. A. 1930. The botanical name of the "Flat-crown" tree. *Kew Bull.* 1930: 218–219.
 Villiers, J.-F. 1989. Leguminosae Mimosoideae. *Flore du Gabon* 31: 134–158, pls. 34–38.